

AMENDMENTS TO THE CLAIMS

1
2 1. (currently amended) A ~~packaged~~ packageable dry blended
3 cementitious matrix composition for use in mixing with
4 ~~predetermined~~ amounts of a ~~decorative aggregate~~ an aggregate used
5 for a decorative purpose and water for producing a decorative
6 aggregate-containing cementitious slurry for pouring, troweling and
7 curing on a base, and for producing a durable decorative aggregate-
8 containing surface bonded to the base and suitable for light
9 pedestrian traffic usage, the ~~packaged~~ packageable dry blended
10 cementitious matrix composition being free of additives selected
11 from the group consisting of gypsum, limestone, reactive resins and
12 hardeners therefor, epoxy and mixtures thereof, the ~~packaged~~
13 packageable dry blended cementitious matrix composition not
14 requiring curing at an elevated temperature, the ~~packaged~~
15 packageable dry blended cementitious matrix composition comprising:

16 (a) a quartzitic silica blend;

17 (b) a hydraulic cement selected from the group consisting of
18 Type V hydraulic portland cement and white portland cement;

19 (c) a particulate material selected from the group consisting
20 of fly ash, silica fume and mixtures thereof;

21 (d) optionally, a superplasticizer; and

22 (e) an optional substance selected from the group consisting
23 of shrinkage reducers, alkali-silica reactivity controllers,
24 colorants, permeability reducers and mixtures thereof, and

25 wherein an amount of the quartzitic silica blend is between
26 about 50% to about 79% of the ~~packaged~~ packageable dry blended
27 cementitious matrix composition,

28 wherein an amount of the hydraulic cement is between about 20%
29 to about 35% of the ~~packaged~~ packageable dry blended cementitious
30 matrix composition,

31 wherein an amount of the fly ash if present does not exceed
32 about 8% of the ~~packaged~~ packageable dry blended cementitious
33 matrix composition, and

34 wherein an amount of the silica fume if present does not

1 exceed about 5% of the ~~packaged~~ packageable dry blended
2 cementitious matrix composition.

3 2. (currently amended) A ~~packaged~~ packageable dry blended
4 cementitious matrix composition for use in mixing with
5 ~~predetermined~~ amounts of a ~~decorative aggregate~~ an aggregate used
6 for a decorative purpose and water for producing a decorative
7 aggregate-containing cementitious slurry for pouring, troweling and
8 curing on a base, and for producing a durable decorative aggregate-
9 containing surface bonded to the base and suitable for light
10 pedestrian traffic usage, the ~~packaged~~ packageable dry blended
11 cementitious matrix composition consisting essentially of:

12 (a) a quartzitic silica blend;

13 (b) a hydraulic cement selected from the group consisting of
14 Type V ~~hydraulic~~ portland cement and white portland cement;

15 (c) a particulate material selected from the group consisting
16 of fly ash, silica fume and mixtures thereof;

17 (d) optionally, a superplasticizer; and

18 (e) an optional substance selected from the group consisting
19 of shrinkage reducers, alkali-silica reactivity controllers,
20 colorants, permeability reducers and mixtures thereof, and

21 wherein an amount of the quartzitic silica blend is between
22 about 50% to about 79% of the ~~packaged~~ packageable dry blended
23 cementitious matrix composition,

24 wherein an amount of the hydraulic cement is between about 20%
25 to about 35% of the ~~packaged~~ packageable dry blended cementitious
26 matrix composition,

27 wherein an amount of the fly ash if present does not exceed
28 about 8% of the ~~packaged~~ packageable dry blended cementitious
29 matrix composition, and

30 wherein an amount of the silica fume if present does not
31 exceed about 5% of the ~~packaged~~ packageable dry blended
32 cementitious matrix composition.

- 1 3. (Currently amended) The ~~packaged~~ packageable dry blended
2 cementitious matrix composition of claim 2, wherein
3 the quartzitic silica blend is between about 55% and
4 about 75% of the ~~packaged~~ packageable dry blended cementitious
5 matrix composition,
6 the hydraulic cement is between about 22% and about 33%
7 of the ~~packaged~~ packageable dry blended cementitious matrix
8 composition,
9 the fly ash does not exceed about 7% of the ~~packaged~~
10 packageable dry blended cementitious matrix composition, and
11 the silica fume does not exceed about 4% of the ~~packaged~~
12 packageable dry blended cementitious matrix composition.
- 13 4. (Currently amended) The ~~packaged~~ packageable dry blended
14 cementitious matrix composition of claim 2, wherein
15 the quartzitic silica blend is between about 60% and
16 about 70% of the ~~packaged~~ packageable dry blended cementitious
17 matrix composition,
18 the hydraulic cement is between about 25% and about 32%
19 of the ~~packaged~~ packageable dry blended cementitious matrix
20 composition,
21 the fly ash is at least about 5% of the ~~packaged~~
22 packageable dry blended cementitious matrix composition, and
23 the silica fume does not exceed about 3.5% of the
24 ~~packaged~~ packageable dry blended cementitious matrix
25 composition.
- 26 5. (Currently amended) The ~~packaged~~ packageable dry blended
27 cementitious matrix composition of claim 2, wherein the
28 quartzitic silica blend is at least about 55% of the ~~packaged~~
29 packageable dry blended cementitious matrix composition.

1 6. (Currently amended) The ~~packaged~~ packageable dry blended
2 cementitious matrix composition of claim 2, wherein the
3 quartzitic silica blend is no greater than about 75% of the
4 ~~packaged~~ packageable dry blended cementitious matrix
5 composition.

6 7. (Currently amended) The ~~packaged~~ packageable dry blended
7 cementitious matrix composition of claim 2, wherein the
8 blended quartzitic silica that when characterized using
9 Standard Sieve Sizes 4, 8, 16, 30, 50 and 100 has a particle
10 size of:

11 about 0% larger than Standard Sieve Size 4,
12 between about 4% and about 8% smaller than Standard Sieve
13 Size 4 and larger than Standard Sieve Size 8,
14 between about 17% and about 25% smaller than Standard
15 Sieve Size 8 and larger than Standard Sieve Size 16,
16 between about 16% and about 25% smaller than Standard
17 Sieve Size 16 and larger than Standard Sieve Size 30,
18 between about 20% and about 25% smaller than Standard
19 Sieve Size 30 and larger than Standard Sieve Size 50,
20 between about 14% and about 19% smaller than Standard
21 Sieve Size 50 and larger than Standard Sieve Size 100,
22 and
23 no more than about 7% smaller than Standard Sieve Size
24 200.

25 8. (Currently amended) The ~~packaged~~ packageable dry blended
26 cementitious matrix composition of claim 2, wherein the
27 blended quartzitic silica is produced from Sand Size Nos. 16,
28 20, 30 and 60 has a particle size of about 25% Sand Size No.
29 16, about 37% Sand Size No. 20,
30 about 25% Sand Size No. 30, and about 13% Sand Size No. 60.

- 1 9. (Currently amended) The ~~packaged~~ packageable dry blended
2 cementitious matrix composition of claim 2, wherein the
3 blended quartzitic silica that when characterized using
4 Standard Sieve Sizes 4, 8, 16, 30, 50 and 100 has a fineness
5 modulus of about 2.5.
- 6 10. (Currently amended) The ~~packaged~~ packageable dry blended
7 cementitious matrix composition of claim 2, wherein the
8 blended quartzitic silica has a silica content of at least
9 about 80%.
- 10 11. (Currently amended) The ~~packaged~~ packageable dry blended
11 cementitious matrix composition of claim 2, wherein the
12 hydraulic cement is at least about 22% of the ~~packaged~~
13 packageable dry blended cementitious matrix composition.
- 14 12. (Currently amended) The ~~packaged~~ packageable dry blended
15 cementitious matrix composition of claim 2, wherein the
16 hydraulic cement is no greater than about 33% of the ~~packaged~~
17 packageable dry blended cementitious matrix composition.
- 18 13. (Currently amended) The ~~packaged~~ packageable dry blended
19 cementitious matrix composition of claim 2, wherein the
20 hydraulic cement is Type V portland cement.
- 21 14. (Currently amended) The ~~packaged~~ packageable dry blended
22 cementitious matrix composition of claim 2, wherein the
23 hydraulic cement is white portland cement.

1 15. (Currently amended) The ~~packaged~~ packageable dry blended
2 cementitious matrix composition of claim 2, wherein the
3 ~~packaged~~ packageable dry blended cementitious matrix
4 composition contains fly ash and the fly ash is no greater
5 than about 8% of the ~~packaged~~ packageable dry blended
6 cementitious matrix composition.

7 16. (Currently amended) The ~~packaged~~ packageable dry blended
8 cementitious matrix composition of claim 2, wherein the
9 ~~packaged~~ packageable dry blended cementitious matrix
10 composition contains fly ash and the fly ash is at least about
11 5% of the ~~packaged~~ packageable dry blended cementitious matrix
12 composition.

13 17. (Currently amended) The ~~packaged~~ packageable dry blended
14 cementitious matrix composition of claim 2, wherein the
15 ~~packaged~~ packageable dry blended cementitious matrix
16 composition contains fly ash and the fly ash is between about
17 5% and about 7% of the ~~packaged~~ packageable dry blended
18 cementitious matrix composition.

19 18. (Currently amended) The ~~packaged~~ packageable dry blended
20 cementitious matrix composition of claim 2, wherein the
21 packageable dry blended cementitious matrix composition
22 contains silica fume and the silica fume is at least about
23 0.5% of the ~~packaged~~ packageable dry blended cementitious
24 matrix composition.

25 19. (Currently amended) The ~~packaged~~ packageable dry blended
26 cementitious matrix composition of claim 2, wherein the
27 packageable dry blended cementitious matrix composition
28 contains silica fume and the silica fume is no greater than
29 about 4% of the ~~packaged~~ packageable dry blended cementitious
30 matrix composition.

1 20. (Currently amended) The ~~packaged~~ packageable dry blended
2 cementitious matrix composition of claim 2, wherein the
3 ~~packaged~~ packageable dry blended cementitious matrix
4 composition contains silica fume and the silica fume is
5 between about 1% to about 5% of the ~~packaged~~ packageable dry
6 blended cementitious matrix composition.

7 21. (Currently amended) The ~~packaged~~ packageable dry blended
8 cementitious matrix composition of claim 2, wherein the
9 ~~packaged~~ packageable dry blended cementitious matrix
10 composition contains superplasticizer and the superplasticizer
11 is up to about 3% of the ~~packaged~~ packageable dry blended
12 cementitious matrix composition.

13 22. (Currently amended) The ~~packaged~~ packageable dry blended
14 cementitious matrix composition of claim 2, wherein the
15 ~~packaged~~ packageable dry blended cementitious matrix
16 composition contains superplasticizer and the superplasticizer
17 is between about 0.3% and about 1.5% of the ~~packaged~~
18 packageable dry blended cementitious matrix composition.

19 23. (Currently amended) The ~~packaged~~ packageable dry blended
20 cementitious matrix composition of claim 2, wherein the
21 superplasticizer is a ~~packaged~~ packageable dry solid
22 superplasticizer.

1 24. (currently amended) A ~~packaged~~ packageable dry blended
2 cementitious matrix composition for use in mixing with amounts of
3 an aggregate used for a decorative purpose and water for producing
4 a decorative aggregate-containing cementitious slurry for pouring,
5 troweling and curing on a base, and for producing a durable
6 decorative aggregate-containing surface bonded to the base and
7 suitable for light pedestrian traffic usage, the packageable dry
8 blended cementitious matrix composition consisting of:

- 9 (a) a quartzitic silica blend;
10 (b) a hydraulic cement selected from the group consisting of
11 Type V ~~hydraulic~~ portland cement and white portland cement;
12 (c) a particulate material selected from the group consisting
13 of fly ash, silica fume and mixtures thereof;
14 (d) optionally, a superplasticizer; and
15 (e) an optional substance selected from the group consisting
16 of shrinkage reducers, alkali-silica reactivity controllers,
17 colorants, permeability reducers and mixtures thereof,

18 wherein an amount of the quartzitic silica blend is between
19 about 50% to about 79% of the ~~packaged~~ packageable dry blended
20 cementitious matrix composition,

21 wherein an amount of the hydraulic cement is between about 20%
22 to about 35% of the ~~packaged~~ packageable dry blended cementitious
23 matrix composition,

24 wherein an amount of the fly ash if present does not exceed
25 about 8% of the ~~packaged~~ packageable dry blended cementitious
26 matrix composition, and

27 wherein an amount of the silica fume if present does not
28 exceed about 5% of the ~~packaged~~ packageable dry blended
29 cementitious matrix composition.

1 25. (currently amended) A decorative aggregate-containing
2 cementitious slurry for use in producing a decorative aggregate-
3 containing surface and suitable for light pedestrian traffic usage,
4 the decorative aggregate-containing cementitious slurry comprising:

5 (a) a ~~packaged~~ packageable dry blended cementitious matrix
6 composition consisting essentially of:

7 (i) a quartzitic silica blend;

8 (ii) a hydraulic cement selected from the group
9 consisting of Type V ~~hydraulic~~ portland cement and
10 white portland cement;

11 (iii) a particulate material selected from the group
12 consisting of fly ash, silica fume and mixtures
13 thereof;

14 (iv) optionally, a superplasticizer; and

15 (v) an optional substance selected from the group
16 consisting of shrinkage reducers, alkali-silica
17 reactivity controllers, colorants, permeability
18 reducers and mixtures thereof, and

19 wherein an amount of the quartzitic silica blend is
20 between about 50% to about 79% of the ~~packaged~~ packageable dry
21 blended cementitious matrix composition,

22 wherein an amount of the hydraulic cement is between
23 about 20% to about 35% of the ~~packaged~~ packageable dry blended
24 cementitious matrix composition,

25 wherein an amount of the fly ash if present does not
26 exceed about 8% of the ~~packaged~~ packageable dry blended
27 cementitious matrix composition, and

28 wherein an amount of the silica fume if present does not
29 exceed about 5% of the ~~packaged~~ packageable dry blended
30 cementitious matrix composition;

31 (b) a ~~decorative~~ an aggregate used for a decorative purpose
32 wherein the weight ratio of ~~decorative~~ the aggregate used for
33 decorative purpose to ~~packaged~~ the packageable dry blended

1 cementitious matrix composition is between about 20/60 to
2 about 50/60; and

- 3 (c) water in an amount that when mixed with the ~~packaged~~
4 packageable dry blended cementitious matrix composition and
5 the decorative aggregate produces slurry having a slump of at
6 least about 2 inches.

7 26. (Currently amended) The decorative aggregate-containing
8 cementitious slurry of claim 25, wherein the weight ratio of
9 decorative aggregate to ~~packaged~~ packageable dry blended
10 cementitious matrix composition is between about 35/60 to
11 about 45/60.

12 27. (Currently amended) The decorative aggregate-containing
13 cementitious slurry of claim 25, wherein the weight ratio of
14 decorative aggregate to ~~packaged~~ packageable dry blended
15 cementitious matrix composition is about 40/60.

16 28. (Original) A decorative aggregate-containing cementitious
17 slurry of claim 25, wherein the amount of water produces
18 slurry having a slump of at least about 3 inches.

19 29. (Original) A decorative aggregate-containing cementitious
20 slurry of claim 25, wherein the amount of water produces
21 slurry having a slump of from about 3 inches to about 5
22 inches.

23 30. (Original) A decorative aggregate-containing cementitious
24 slurry of claim 25, further comprising a superplasticizer.

25 Claims 31-34 (canceled).

1 35. (New) The packageable dry blended cementitious matrix
2 composition of claim 1, wherein all particles the quartzitic
3 silica blend pass through Standard Sieve Size No. 4.

4 36. (New) The packageable dry blended cementitious matrix
5 composition of claim 1, wherein the particulate material
6 selected from the group consisting of fly ash, silica fume and
7 mixtures thereof is fly ash.

8 37. (New) The packageable dry blended cementitious matrix
9 composition of claim 1, wherein durable decorative aggregate-
10 containing surface has a compressive strength of 2200 psi or
11 higher at 28 days.

12 38. (New) The packageable dry blended cementitious matrix
13 composition of claim 2, wherein all particles the quartzitic
14 silica blend pass through Standard Sieve Size No. 4.

15 39. (New) The packageable dry blended cementitious matrix
16 composition of claim 2, wherein the particulate material
17 selected from the group consisting of fly ash, silica fume and
18 mixtures thereof is fly ash.

19 40. (New) The packageable dry blended cementitious matrix
20 composition of claim 2, wherein durable decorative aggregate-
21 containing surface has a compressive strength of 2200 psi or
22 higher at 28 days.

23 41. (New) The packageable dry blended cementitious matrix
24 composition of claim 24, wherein all particles the quartzitic
25 silica blend pass through Standard Sieve Size No. 4.

1 42. (New) The packageable dry blended cementitious matrix
2 composition of claim 24, wherein the particulate material
3 selected from the group consisting of fly ash, silica fume and
4 mixtures thereof is fly ash.

5 43. (New) The packageable dry blended cementitious matrix
6 composition of claim 24 durable decorative aggregate-
7 containing surface has a compressive strength of 2200 psi or
8 higher at 28 days.

9 44. (New) The decorative aggregate-containing cementitious
10 slurry of claim 25, wherein all particles the quartzitic
11 silica blend pass through Standard Sieve Size No. 4.

12 45. (New) The decorative aggregate-containing cementitious
13 slurry of claim 25, wherein the particulate material selected
14 from the group consisting of fly ash, silica fume and mixtures
15 thereof is fly ash.

16 46. (New) The decorative aggregate-containing cementitious
17 slurry of claim 25, wherein durable decorative aggregate-
18 containing surface has a compressive strength of 2200 psi or
19 higher at 28 days.

20 47. (New) A decorative aggregate-containing cementitious
21 slurry for use in producing a decorative aggregate-containing
22 surface and suitable for light pedestrian traffic usage, the
23 decorative aggregate-containing cementitious slurry consisting
24 essentially of:

25 (a) a packageable dry blended cementitious matrix composition
26 consisting essentially of:

27 (i) a quartzitic silica blend;

(ii) a hydraulic cement selected from the group consisting of Type V portland cement and white portland cement;

(iii) a particulate material selected from the group consisting of fly ash, silica fume and mixtures thereof;

(iv) optionally, a superplasticizer; and

(v) an optional substance selected from the group consisting of shrinkage reducers, alkali-silica reactivity controllers, colorants, permeability reducers and mixtures thereof, and

wherein an amount of the quartzitic silica blend is between about 50% to about 79% of the packageable dry blended cementitious matrix composition,

wherein an amount of the hydraulic cement is between about 20% to about 35% of the packageable dry blended cementitious matrix composition,

wherein an amount of the fly ash if present does not exceed about 8% of the packageable dry blended cementitious matrix composition, and

wherein an amount of the silica fume if present does not exceed about 5% of the packageable dry blended cementitious matrix composition;

(b) an aggregate used for a decorative purpose wherein the weight ratio of the aggregate used for decorative purpose to the packageable dry blended cementitious matrix composition is between about 20/60 to about 50/60; and

(c) water in an amount that when mixed with the packageable dry blended cementitious matrix composition and the decorative aggregate produces slurry having a slump of at least about 2 inches.